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CLINICAL IMAGES

Unexpected death from a colloid cyst

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Abstract
Background Colloid cysts are usually benign brain tumors, which rarely cause acute neurological deterioration with sudden death due to an acute increase of intracranial pressure. So far, the final pathophysiology and clinical signs of impending death are unclear in this context.
Aim We present a case of an adolescent who presented with symptoms similar to gastroenteritis.
Results He unexpectedly developed a generalized seizure, acute pulmonary edema and life-threatening cardiac dysrhythmia.
Conclusion Subtle distinctions between symptoms due to intracranial hypertension, which typically cause headache and vomiting, and true gastroenteritis are discussed as well as the pathophysiology of neurogenic pulmonary edema and the origin of cerebral-triggered cardiac dysrhythmias.

Keywords Unexpected death · Colloid cyst · Cardiopulmonary complication

Patient presentation

A previously healthy adolescent male presented with a 3-day history of headache and vomiting, initially diagnosed as gastroenteritis. On the day of admission, he presented with slightly lethargy, but was able to communicate and follow simple commands. Unexpectedly, he developed a generalized seizure and different types of unstable tachycardia. Multiple cardioversions and amiodarone finally resulted in sinus tachycardia. Sudden pulmonary edema required intubation, and a few minutes later, the pupils became dilated and fixed. An immediate CT scan showed a hyperdense colloid cyst in the foramen of Monro with massive hydrocephalus. A chest x-ray showed a picture of a white lung similar to ARDS. A bilateral ventricular external shunt performed by neurosurgeons was of no avail; the patient died after 2 days decerebrated. No post-mortem examination was performed.

Discussion

Third ventricular colloid cysts can affect young patients and often present with mild symptoms [1]. Diagnosed in a timely manner, these ependymomas can easily be removed by neurosurgeons. A delay in diagnosis can lead to an acute clinical deterioration with unexpected and sudden death [2–4]. The diagnosis of a viral illness is the typical pitfall. Cardiac and pulmonary complications can accompany brain herniation and again distract physicians from the underlying cerebral origin [5–8].

Colloid cysts, although rare, should remain in the differential diagnosis in young patients with headache and vomiting—especially if no further symptoms are present. Immediate diagnostic testing in suscpected cases is essen-

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tial since an acute hydrocephalus can be disastrous within minutes. There was no positive family history in this case, but familial clusters have been described [9–11].

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